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Tuberculosis.

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Many great men have consecrated their lives to the disentangling of the knotty nature of tuberculosis. The foundation for the immortal fame of Robert Koch, who demonstrated bacillary consumption, was firmly laid by Bayle and Laennec and others, whose revelations from time to time led the way to the discovery of the bacillus of Koch.

Books and their writers did not long agree on the place which heredity and contagion held in relation to tuberculosis. But when the ancient enemy bacillus was at length discovered and experimented upon, many applied the microscopic test and verified the first experiments.

Then Koch wrote "Inasmuch, therefore, as the bacillus tuberculosis is found invariably in all cases of the disease and is found in no other disease, and inasmuch as the introduction of the bacillus from a pure culture that is isolated from all other micro-organisms invariably produces the disease, the tubercle bacillus must be regarded as the sole cause of the disease." This statement has never been successfully contradicted.

A review of what is known is as useful as to hear new and poorly-established doctrines. All do not reach the same conclusion from the same data, but no one can examine the literature of tuberculosis without reaching the conclusion that it is contagious and curable.

Accepting the new designation bacillary tuberculosis, we dispense with the synonyms interstitial pneumonia, fibroid phthisis, cirrhosis of the lungs, pulmonary schlerosis, phthisis pulmonalis, and a host of more vulgar terminations.

Tuberculosis always hints at some consideration of tubercle as its cause, and bacillus as the cause of the tubercle, and tuberculin as a product of bacilli. With the symptoms of tuberculosis almost everyone is acquainted. Tubercle is a cell or a fusion of cells unlike any material found in a healthy body. It is neoplastic and hyperplastic, without vessels or sensation. Virchow says "Tubercle is always a pitiful production, from its very onset miserable." Tubercles, single or in clusters, vary in size from a mere point to that of a pint or more. They are found in all serous and mucous surfaces and tracts, in lungs, glands, bones, and in all the organs. They are sometimes but not usually stationary; they may indurate, become fatty and degenerate, calcify, or be absorbed. The bacillus tuberculosis is the only active cause of the tubercle.

The contagiousness of tuberculosis had been advocated by some and denied by many before the bacilli were discovered. Harmless germs were known before the harmful ones were studied. It is true that many germs assist in plant development and promote human life. Germs do sometimes change dead tissues into conditions more compatible with life, and some of them sour the milk, while others poison the cheese. The bacilli tuberculosis, after concealing their identity for centuries amid a crowd of friendly and unfriendly micro-organisms, were finally spotted with Koch's analine dye, and hoping to elude detection in their nefarious work, kept themselves motionless.

Once isolated, the bacilli were teased with needles till they awoke in all their virulence, and new colonies were established all over the world.

Being no longer able to sham hibernation,

the purposes and possibilities of the bacilli soon became manifest, as men condemned by inoculations the otherwise immure guinea pigs, rabbits, dogs, fowls and birds to surrender to the vicious influence of a parasite often less than one twenty-thousandth of an inch in length.

In nine hundred and eighty-two samples of sputa of tuberculous patients Gaffky found the bacilli in all but forty-four. It was found that decomposing sputa of six weeks and dessicated of six months would tolerate boiling a limited time and yet infect when inoculated.

It has been ascertained that although resisting annihilation of their infective properties the bacilli do not grow in nature, but are parasites and are developed inside the body.

After receiving a welcome home in some properly broken-down subject, their reproductive powers must be limitless, since Heller has estimated three hundred millions in a single expectoration after a somewhat "successful cough." After discovery, these bacilli led some to believe that the parasite hops upon a passing white blood corpuscle and rafts itself to a chosen spot for carrying septic material from breaking-down tubercles. But cultivation alone in sterilized media proved bacilli to be something more than carriers.

Though physicians generally believe tuberculosis to be contagious, the public is in doubt, and physicians treat the contagiousness more as a theory than as a practice. It is said so many are exposed and so few die. How many do you want to die? A disease which stands first in mortality ought to awaken us to a sense of personal danger. Tuberculosis is credited by those authorized to speak with one-fifth of the deaths in the human family. It is stated that in hospitals fifty per cent. of post-mortems reveal traces of tuberculous disease existing at some period of life. Two-thirds of the cases show the disease stationary, declining or local. Those who deny or ridicule the contagiousness of tuberculosis are no longer willing to risk their lives to prove their theory as did the French physician in demonstrating the non-contagiousness of yellow fever. Though human tuberculosis is very rarely if ever inherited or congenital, but almost if not quite always extra-uterine insurance companies will properly continue to inquire whether the applicant has ever had any relative die of consumption, for inheritance of a poorly nourished and meanly organized body is the best possible medium for developing tuberculosis when the Kochian bacilli are lodged in such non-resisting tissues. One may inherit a susceptibility and acquire an insusceptibility, or he may inherit an insusceptibility and acquire a susceptibility. We force consumption from inoculations of bacilli alone, but not from disposition alone. One may inherit a disposition to consumption but never have it until he inhales or swallows or inoculates himself with bacillus tuberculosis; another may inhale or swallow bacilli but escape consumption.

No animals are absolutely immune to the disease. Those least liable to contagion are least easily inoculated successfully. This is true of man and the lower animals.

That "tuberculosis is a specific disease caused by tubercles developed by specific bacteria" has been shown by numerous experiments. In one instance Tappanier was experimenting with dogs, compelling them to inhale air laden with bacilli. The dogs in due time developed tubercles and tuberculosis, and a healthy male servant who had the care of the dogs and was much with them in the same chamber took tuberculosis and died in two months. Sheep and goats rarely have tuberculosis. Birds and fowls have chiefly tuberculosis of liver and intestines. A known source of infection of fowls is from eating phthisical sputa. Monkeys in cages generally die of tuberculosis. Pigs have it but do not easily become tuberculous, and are generally free from important symptoms. Tuberculosis is rare in horses, but is not unknown. Next to man, and according to the claims of some in greater degree, cattle are liable to tuberculosis.

The ability some individuals have to resist the contagion often continues after the disease is acquired; in such, recovery is more

probable. A small number of bacilli are not thought to do as much harm in the system as a large number. This is true after inoculation as well as in otherwise acquiring the disease.

It is not the presence of the predisposition more than the absence of vigor to repel the invasion which forces a yielding to the wrathful little enemy which sets so great a fire going. At times the malignant poison of the bacilli, as in scarlet fever and diphtheria, overwhelms the attacked and death is speedy. As a rule, however, tuberculization is a slow process, lasting for years, and sometimes leaving the patient in fairly good health.

In many cases we guard against an acute disease becoming chronic, but every case of tuberculosis is chronic before it is acute. Tubercle is not an inflammatory product, but an old tuberculosis may become acute and active at any time. It is known that expired air does not carry any bacilli, even though mucous surfaces over which breath passses are freighted with millions of them. "A local tuberculosis" is important because it may become "general and acute." It may begin in one locality and suddenly invade another. The local disease precedes the constitutional. Nature for her violation gave us the bacilli, but left us secretions in the stomach which often limit their powers when taken in food; but when these secretions are weakened by disease or bad modes of living, the bacilli more easily pass the stomach intact.

Some faithful students of tuberculosis think that they find the origin of it all in bovine animals, and some have said that the introduction and spread of tuberculosis are coincident with the importation of inbred dairy stock. It is claimed that cattle nurse the germs in such quantities that they prevent their extinction. Veterinarians have contributed many experiments and furnished not a few statistics of interest on this branch of the subject. It is not likely that tuberculosis in cattle and man sustain the same relation as hydrophobia in dogs and man.

The Jewish rabbis called attention to tuberculosis in cattle long ago, and many have proved the identity of the disease in bovines and the human family.

In bovines there may be more tendency to connective tissue changes than in man, and the mediastinal and bronchial glands are greatly enlarged and are obliterated by great masses of caseous or calcarious matter where the lungs are sound. Koch and hundreds of others have demonstrated the identity of bacilli in the ox and in man. Prof. Brush, in an article before the New York Academy of Medicine, says that wherever the dairy cow has been introduced there tuberculosis has spread among the people, and that tuberculosis is always derived primarily from the dairy cow. In whatever country the dairy cow is domesticated, tuberculosis begins its rise among the inhabitants thereof. He gives an estimate of the number of cattle in various countries and the proportion of inhabitants to bovines. France, Italy, Portugal, Africa and Australia are cited to show that where there are no cattle there is no consumption, and as the bovines outnumber the inhabitants consumption accordingly increases.

In Africa, where natives drink blood from jugular veins and eat hides and all of the magnificent black cattle of the country, scrofula and consumption abound. Again, in the steppes of Russia, one hundred feet below sea level, and in Tokio, ten thousand feet above the sea, there are neither cows nor consumptives. It is also true, however, that tuberculosis has increased all over the world with the increase of population. In Germany, three and one-half per cent. of cattle are reported tuberculous when slaughtered at the Abattoirs; in France, one-half of one per cent.; in Belgium, four per cent.; in Holland, seven per cent.; in Copenhagen, four to six per cent.; and for cows alone, sixteen per cent.; in Argentine Republic, ten per cent. for imported improved stock and one-half of one per cent. for native stock. In Baltimore, two and a half to three per cent. are tuberculous.

The continuous supplying of milk and reproduction, together with careful inbreeding, causes great increase of tuberculosis in cows

over steers. Steers are seldom diseased, because as beef producers they receive a better start in life, are more carefully sheltered and fed, and are slaughtered before the age at which tuberculosis most asserts itself. The Jersey cow is notoriously the most tuberculous. Cows in open pasture are not so tuberculous as those in close stables in crowded cities. In cattle, the lungs, liver, spleen, intestines, heart, peritoneum and all organs and serous and mucous surfaces show the tubercular lesions corresponding to those in man.

Various experiments have been undertaken to ascertain the liability of contagion from eating the flesh of tuberculous animals. It has been insisted that tuberculosis does not affect the muscles, and that muscle juice is a poison which bacilli cannot withstand. In many cases expressed muscle juice did not when inoculated produce tuberculosis, but Steinheil produced it in all of a large number of guinea pigs inoculated with muscle juice pressed from nine hands of men dead from tuberculosis.

Milk as a conveyer of contagious bacilli has received much attention, and tuberculosis doubtless owes some degree of its presence among us to milk from diseased cows. The udder is a favorite location for a local tuberculosis, being oftener the seat of disease than any other part. When the udder is tuberculous the milk is affected very often by presence of bacilli, always by deterioration of quality. In very early stages of affection of the udder milk is apparently not changed, and bacilli are again found in the milk without lesions in the udder.

Drs. Ernst and Peters, of Massachusetts, found bacilli in twenty-seven per cent. of tuberculous cows when the udders were not diseased. Hershberger obtained tuberculosis in fifty per cent. of guinea pigs inoculated with milk from tuberculous cows with sound udders. An interesting account is given of a farmer withholding his milk from market because his cows were diseased and of feeding his pigs to raw milk with the result of giving the pigs tuberculosis and being compelled to destroy them.

Milk in a sound mammary gland and a healthy animal is free from germs of every kind, but no substance is so fruitful in variety and number of germs as milk soon after leaving the udder. Most species of bacteria found in milk are harmless, and some are useful, as the putrefactive germ which imparts to Limburger cheese its much sought flavor. Tubercle bacilli are never formed or collected in milk after it leaves the udder, and are not to be considered with the external bacteria which multiply outside the body.

A class interested in diseased meat and milk have not assisted in solving the problems connected therewith. They first deny that there is any tuberculosis in cows, then admit that it may affect the lungs but never the muscles. They follow this by the statement that the udder must be diseased before the milk is unfit for food. Then they dilute the milk of the tuberculous cows with all the rest of the milk in the dairy or with water. It has been found that diluting the diseased milk with one hundred parts of water will attenuate the bacilli and greatly diminish the danger of infection. (But the baby will not grow plump and rosy on such diet.)

Dr. Dorpat, of the government supervision in Russia, obtained similar reaction in tuberculous cows upon inoculation with tuberculin to that already met with in man. In his experiments no reaction followed in the case of animals not tuberculous.

In Berlin, Dr. Schutz inoculated a number of cows and found, post-mortem, tubercles when reaction was secured. The veterinary department of the University of Pennsylvania began the first experiments in this country with tuberculin and tuberculous cattle.

It is difficult to diagnose ante-mortem; a bad breath accompanied with cough and loss of flesh occasionally in cattle is not sufficient on which to base diagnosis. Sputa is not easily obtained, and aqueous humor has been withdrawn and injected into innocent animals but not with satisfactory results.

It was hoped that the experiments of the University of Pennsylvania referred to would

be diagnostic and preventive. Healthy cows inoculated and turned into infected herds, it was claimed, were immune for some months at least. Last February a valuable herd of Jersey cows and bulls, some of them valued at five hundred dollars apiece, were inoculated with tuberculin by the faculty of the university, and on post-mortem displayed well advanced tuberculization. The full report of these last experiments is not yet published, but the infection of herds in one locality or another is attracting attention and interest. Not long since, a farmer in western Kansas sold at public sale an infected herd of cattle, and in several instances other herds were infected by importations from the sale.

Tuberculin in man resolved so many local chronic cases into acute general ones, that no one would longer think of using it in man as a cure or for other purposes. Germicides have not very long been conspicuous in curing many cases of general tuberculosis, though in selected cases creosote has accomplished as many cures as any germicide. Tarpret cured seven of twenty-one cases with creosote vapor under pressure. Schill and Fisher found bacilli from sputa survive twenty-four hours exposure to creosote vapor of one one-hundredth per cent. They also found bacilli developed readily in sulphuretted hydrogen.

To say supremacy of the nervous system is the principle objective point has not gotten rid of many tubercles. Drinking blood fresh from a bullock cannot purify a degenerated blood current. The bacteria of putrefaction cannot drive the bacilli out. Generations of degraded tissue are not made normal by going to the mountain top nor to the sea. If climate were a sure cure, it would not exist in so many localities nor be of so many varieties.

Pyoktanin may in portions of one sixty-four thousandths of of a grain arrest putrefaction of tissues, but with this treatment alone tubercle formation will go on forever. The royal touch long ago ceased to be a safeguard against the king of terrors. The claim of Katasata and Beering that they can enable the system to resist the poison of inoculated diphtheria and tetanus by previously injecting prepared blood serum is not yet established in the case of tuberculosis. The diagnosis used to be disputed when a cure of tuberculosis was reported, but the dissecting room now reveals too many healed lesions from tubercle which spontaneously or by different modes of treatment succumbed for us to decry all treatment. The more we study the nature of tuberculosis the more competent are we to deal with it successfully. The treatment of the past has not been in the wrong direction nor in vain. Few of the text-books are now out of harmony with the contagious nature of tuberculosis, and the building-up processes are still the important measures. We are not to stop fortifying the organ most interested and the system in general. Local tubercle is removed surgically.

We must not only keep contagion in mind, but help the public to do the same. Not only tell a patient he may reinfect himself, but that he may infect others. Do not lay aside any of the wise measures experience has proved to be useful. It is not so much that she will go where the leaves fall, but that she is more apt to go where the trees are of deciduous leaves than where there are pines. Drafts and stagnant air still shorten life, and lungs will continue to expand most in bright dry air, and sometimes hemorrhages will follow the consequent stretching of the air cells. Keep the bacilli in mind, but support the crippled lung and halted blood which remain after the bacilli are gone. Maintain such a prudent habit and diet that the bacilli will do no harm when they do come.

Milk has been the meat and drink and medicine of the tuberculous for ages, but Jacobi says that "none but savages should drink raw milk." Jacond prohibits suckling by a healthy mother when the father is tuberculous. Prolonged boiling of milk or Pasteurization whereby it is kept at a temperature of 155° for a few hours is a better protection than imperfect or partial dairy inspection. Thorough cooking of infected meat should be practiced, and if occasionally an uninfected piece is overdone it is at least

done enough. Oliver Wendell Holmes once told a patient he should have begun to take treatment two hundred years sooner.

Flint paraphrases in speaking of the bacillus, "You take away their lives when you do take away the means by which they live." And Solis Cohen says "If the defences on the frontier are kept in order the enemy cannot penetrate into the country."

Medical Jurisprudence.

Read before the South Kansas Medical Society at Wichita, May 3, 1892,

By O. L. PEAK, Pratt, Kas.

It is seldom that we hear the subject of medical jurisprudence discussed in our societies, and if I can awaken more thought in that very important branch of our professional education and lead to better preparation for the emergencies that arise in that connection, I will have accomplished all that was intended by presenting the subject for discussion at this time. New theories or the progress of science enter very little into its consideration.

After we have listened to the course of lectures on this branch in our regular college curriculum (which then are often underestimated), we are inclined to dismiss the subject altogether from our minds as we go out into active practice, thinking ourselves competent to cope with anything that may come up in that line because of the utter ignorance of the general public on that subject. It is a mistake to imagine that because we are M.D.'s we are by virtue of this medico-legal experts. He who goes upon the stand trusting to this idea will often find that he has to encounter a lego-medical expert who will relentlessly put him to shame in the most humiliating manner in the presence of judge, jury, and a host of eager critics. No one should trust himself to go into the witness box without immediate previous preparation on the case before him, which, of course, means time and skill.

For this expenditure of time and skill he is entitled to expert compensation. Unfortunately, the law does not always provide for such compensation, but there is a drift in general law in that direction which only needs the encouragement and influence of the medical profession to become more directly applicable to our just needs. In Tidy's Legal Medicine we have the following language: "No witness can be compelled to give his opinion in the witness box. Further, no one is bound to accept a subpœna merely to state opinions.

"The witness that can speak to any actual fact connected with the case must attend the trial, if required to do so, but the expert, however wide his experience, cannot be forced to give the court the value of his general or special knowledge."

This is in the line of justice and right, but it ought to go far enough to compel the attendance of the expert and provide a commensurate fee. Certainly a court could not justly use a man's private property, his skilled manual labor, his stock or his merchandise, without adequate compensation. Much less should it presume to use the results of the labor of his brain, which has been made valuable only by long labor and hard study, than which nothing could be more strictly considered a man's private property.

What can we do in the interim while a law is being brought about to provide this legal protection?

One way that is suggested is to take advantage of the fact that in most cases neither the prosecution nor the defence will care to trust his side of the case to an unwilling witness, and will see that his client provides expert fees. However, before consenting to act as expert on either side, we should examine the case thoroughly and see that we could testify to what is wanted of us; if not, then frankly decline, and certainly do not allow yourself to become a partisan or put yourself up to the highest bidder.

Having consented to act as a witness and your fee having been provided for, it is then your duty to yourself, your profession and the public—in view of the great and serious responsibility you have assumed—to give it your best possible service.

The expert or skilled witness is not necessarily expected to testify to facts, but to give his skilled opinion on facts, and is therefore expected to be really able to enlighten the court and jury. His answers should be clear, simple and concise, and his general demeanor that of an educated gentleman.

This kind of service can only be given after a careful and thorough preparation on all points bearing on the question at issue, so as to answer all fine questions unhesitatingly and accurately. If tangling questions are sprung — which are very likely to come up in cross-examination — it is dangerous policy to guess at the answers; better to say you don't know.

Our investigations should extend to the examination of the state experts, report any chemical analysis that may have been made, the results of an autopsy, in fact, everything that will yield any light on the subject.

This should not be done with an idea of opposition, but with a view to arriving at truth and justice. In fact, there would be no opposition if each expert was thoroughly and equally well qualified, and equally honest in his desire to arrive at the truth.

Perfection admits of no division. A wrangle among doctors over points that ought to be settled by the same methods of investigation nearly always brings discredit on some if not all of the participants, besides lowers the dignity of the profession as well as the confidence of the people.

Our medico-legal responsibilities are not limited to the above-indicated duties, but come up in many other ways in our professional work. We ought to be prepared to know life from death, to differentiate between death beginning at the brain and that beginning at the heart or in the lungs, how long since death took place, what caused it, or at least the nature of the cause, and be able to properly and intelligently conduct a post-mortem, recognizing post-mortem signs caused from wounds, from burns, asphyxia in its different forms, electricity, starvation, and the various poisons.

We should also be able to solve questions of doubt in cases of alleged infanticide, fœticide and rape; also to give correct opinions in courts of investigation to determine the sanity or insanity of an individual; and especially be able to detect feigned insanity.

Medico-legal opinions should never be given hastily. Insist on being granted plenty of time, not only for your own protection, but that the ends of justice may better be served. Nearly always the weal or woe of some individual hangs on your professional decision.

Under the head of medical jurisprudence come our suits of malpractice which it stands us in hand to be somewhat posted on.

The prudent, conscientious, honest practioner, of even ordinary ability, has but little to fear from this source, as he does not become an insurer; but by answering a call it is merely implied that he undertakes to do his best, and bring his best skill and efforts to cure. The wise and prudent physician will never guarantee a cure.

Recognizing the fact that all men, even the wisest, are liable to err, I believe it our duty to stand by such a brother who is so unfortunate as to be thus assailed. Such cases are nearly always actuated by an effort to avoid paying a doctor bill or for the purpose of blackmail. Of course he ought to be fortified by some recognized authority for being in the medical profession—show ordinary skill—exercise reasonable care, and not be guilty of departing from or neglecting to employ well established principles. For instance, antiseptics in surgery—an accepted antidote in a given case of poisoning — or an acknowledged specific in disease. Again every practitioner is expected to adhere to the particular system he avows and any departure, without the consent of his patient, from the system under which he was employed, that resulted detrimentally to the patient would clearly make him liable for damages and work a forfeiture of his fee.

There is still another inexcusable cause for suits of malpractice, that justly brings punishment to the offender, which is sufficiently explained in the following quotation of summarized law. "If a physician, in a

state of intoxication, shall prescribe any poison, drug or medicine, to another person, if the result is not fatal, it shall be regarded as a misdemeanor, and he shall be punished by a fine varying from one hundred to five hundred dollars and by imprisonment for not over one year. But if the result is fatal he shall be deemed guilty of manslaughter, and be tried for murder—the punishment in the latter case being a fine, varying from three hundred to five thousand dollars and imprisonment in the penitentiary for a term not exceeding fifteen years."

The subject of life insurance too comes in for a share of our attention. Each one of us who accepts the position of examiner for a life insurance company or society at the same time assumes an obligation to protect the interests of that organization so far as it comes in the line of our professional duties. It is well therefore that we should look up its medico-legal relations, as in cases of survivorship—individual effects of intemperate or bad habits—length of time diseases causing death have probably existed—the question of sanity or insanity in relation to suicide—was the suicide the result of insanity? if so, did the insanity commense before or after taking out the policy? if not, what was the probable motive that actuated the deed?

It is our business also to see that the applicant does not conceal any material facts in his examination.

I could not be expected to enter into a full detail of all the subjects suggested in my paper in the time allotted me; but, as you have noticed, it introduces many questions merely as points for preparation in order that we may acquit ourselves creditably in this important, though somewhat neglected branch of our professional work.

I should regret, however, to have any of our brethren go so far as to try to couple the legal profession with their medical, for it is too often that those who claim such achievements know but little of either medicine or law, and stand out like the unfortunate hermaphrodite—unclaimed by either sex.

Summer Diarrhœas of Children—Etiology, both Chemical and Biological.

By R. E. McVEY, M.D.,

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In our modern and complex modes of life and especially in cities the air contains chemicals from machinery and gases which may be obnoxious to the delicate mucous membrane of the gastro-intestinal canal of growing children. Fine particles of vegetable and mineral substances may enter the system through the air breathed, through the water drank, or through the food taken into the stomach. The biological theory regards the cause of the disease to be the effects of the tyrotoxicon ptomaine discovered by Vaughn. This ptomaine is found in milk when fermented and undigested in the child's stomach. Ptomaines are the result of a putrefactive process of pathogenic germs upon organic matter. Chemically they are amines and resemble the alkaloids in many respects. They are called "cadaveric alkaloids" in contra-distinction to those of vegetable origin. All toxic effects of pathogenic germs are produced by the ptomaines and not by the germs themselves. The tyrotoxicon ptomaine is formed by special germs acting on milk containing organic matter. This ptomaine may simulate some well known vegetable alkaloid which acts as a poison with a cathartic effect. Children fed milk containing this ptomaine or the special germs from which it is produced are liable to nausea, vomiting and purging.

This tyrotoxicon ptomaine disturbs the nervous mechanism of the sympathetic presiding over the function of the secreting glands of the stomach and intestines. The glands are excited and their secretion modified by hyperæmia, inflammation and swelling.

Dr. Luff considers that the principal share of the blame in acute inflammatory diarrhœa rests with the milk or cheese ptomaine produced during the fermentation of milk under certain conditions.

For the present we must accept the tyrotoxicon ptomaine as the principal factor in producing the various forms of summer diarrhœas of children. When this ptomaine sets up an irritation in the small intestines, the dejections are more abundant, and the abdomen will be slightly swollen. If it is deposited in some portion of the large intestine, the dejections are less in quantity but more frequent. The dejections are increased from the normal condition of from two to four times a day to six, eight, twelve times or more. The dejection may be pale and contain whitish lumps of casein. The odor is altered by the presence of volatile products, found in connection with the decomposition of fatty matters. In the absence of bile the dejections are light colored and very offensive. The mucous surface of the bowel is sensitive to the presence of either solids or fluids. When the mucous follicles become excited they secrete an excess of mucus. The mucus acts as a ferment, hastening the decomposition of food passing through the stomach and bowels, and from this decomposition results an excess of gases within the bowel and tympanitis.

The portions of the tube affected by the presence of accumulated gases is the transverse and descending colon and when the colon is distended it is easily outlined. When there is tenderness over the descending colon from pressure, it is always from the presence of gases. In the inflammatory stage of summer diarrhœas, there is softening of the mucous membrane and ulceration of the pyers and solitary glands which corresponds to the stage of the greatest development of the disease. The tenderness will then be found in the right iliac region. When the dejection contains blood, if the blood is from the stomach or upper portion of the intestine the discharge will have the appearance of coffee grounds. If the blood comes from lower down in the intestine the discharge from the bowels will be of a brownish or redish tint; when the pyer and solitary glands inflame and ulcerate there is always present a continued form of fever. When summer diarrhœas are continued long the nutritive changes become quite marked and the whole body is emaciated.

The prognosis is usually good. If death occurs it is usually after continued sickness or from relapses and gradual loss of flesh. The eyes may be sunken, the skin lie in folds from wasting yet the patient get well. No unfavorable prognosis unless there is a collapse.

Cholera infantum seems from the physiology, pathology and symptoms to be different from the mucous form and must be produced by a different ptomaine, having a more virulent cathartic effect and which acts more upon the serum of the blood. Time and further investigation may prove that the two forms of the disease have different ptomaines acting as causes and producing different trains of symptoms with different pathology and results.

In the serous form known as cholera infantum, the discharges are so thin that they soak into the diaper like urine; the odor is musty and offensive. Whatever drinks are swallowed by the infant are rejected immediately; the tongue is moist at first, and clean, and covered with a light fur. The pulse is accelerated, respiration natural or increased, temperature 105 and runs to 107 degrees. There is no abdominal pain or tenderness. The restlessness is due to thirst or to the unpleasant sensation which the sick feel, the emaciations are more rapid than in other forms of diarrhœa. The disease terminates in two or three days. The urine is scanty and sometimes almost suppressed. Cholera infantum may prove fatal from collapse due to loss of serum from the blood. It is more desirable to prevent summer diarrhœas than to effect a cure. During the heat of summer in order to prevent diarrhœas, extra sanitary measures are necessary.

Heat produces more rapid decomposition of the wastes from dwellings and out-buildings and the air being dry the pathogenic germs dessicate and float, thus more readily coming in contact with the moist surfaces of the mucous membranes of the gastro-intestinal canal. Micro-organisms are

found in the dejections and in the mucous membrane. As there is to be found in every barn-yard more or less decomposing refuse matter, which is the natural food of germs, it is not to be wondered that these germs may enter the milk while milking, in the presence of such refuse matter.

With the proper sanitary measures about the premises during the hot summer season and by the use of steralized foods, when germs are in greatest abundance, the disease may be very much mitigated or cease to exist.

The application of remedies to the treatment of disease affecting the intestinal canal should be based on a proper conception of the morbid conditions present. The formula of the tyrotoxicon ptomaine not being given and its reaction unknown, the best we can do at present is to give such medicines as will probably cause its elimination. Such medicine as the biniodide of mercury, iodide of potassium, bi-chloride of mercury, and the hydrate of chloral. If called to a case of summer diarrhœa in the early stage of the disease, where there was indigestion accompanied by acid discharges from the bowels, caused by the formation of lactic and butyric acids in the intestine, I should correct the indigestion by two parts of milk to one part of lime water, the milk having been sterilized, and I would keep the child upon a liquid food, and give about one-half grain of salicylate of soda or the same quantity of sulpho-carbolate of soda. In duodinitis, mucus may occlude the bile ducts, or they may be blocked by inflammatory deposits by which there is less of the biliary and pancreatic secretion, thus retarding intestinal digestion.

The digestion of fats and starches may be restored by the use of the liquid pancrobilin manufactured by Reed & Carnrick.

In duodinitis the patient should be fed only at intervals, about every four hours. The liquid pancro-bilin should be given two hours after the food has been given, so as not to interfere with stomach digestion. In the colliquative forms of diarrhœas attended with distinct acidity, the dilute nitro-hydrochloric acid may be given in drop doses in cold water, before meals and not after.

"Dr. E. M. Simpson employs glycerine of borax in infantile diarrhœa due to excessive fermentation of food in the intestinal canal. It acts, he says, as an antiseptic to prevent excessive fermentation in the stomach and intestinal canal and soothes the mucous membrane in passing over it. The children like this preparation. It lessens the griping pains, renders sweet the offensive motions, and stops the diarrhœa."

It is used as follows:

℞

Glycerine of borax....drops xx
Glycerine of orange...drops iii
Distilled water .....℥ i

M. Sig.: To be given one, two or three hours, according to severity of the case or the age of the patient.

"Dr. Luff used the the biniodide of mercury, 1-50 of a grain of chloral hydrate. He has never found that soluble biniodide of mercury itself acts as an intestinal irritant. He says of eighty cases of acute infantile diarrhœa treated in this way, the diarrhœa ceased within two days."

In the latter stages of the diarrhœa, when there is an abundance of mucus in the discharges, the disease should be checked. For this purpose the hydronapthal may be given, as it is insoluble and is a germicide, and makes a coating for the mucous surface of the bowels. Bismuth has stood the test of time, for the purpose of coating the bowel in excessive mucus secretions. At this period of the disease the tincture of opium is an invaluable remedy. In the serous form of diarrhœa stimulants are well borne by children and are antiseptic and have the tendency to establish a diffusion from the canal into the blood vessels and check the loss of blood serum.

Every case must be studied and the complex of symptoms in each peculiar case studied and met by appropriate therapeutic remedies, and all the necessary sanitary measures for the protection of the patient.

REMEMBER the East Kansas Society meets July 6 at Topeka. Cheap railroad rates.

Penetrating Wounds of the Eye.

Read before the Central Branch Medical Society at Greenleaf, Kansas, June 2, 1892.

By DR. J. H. GREEN, M.D., Washington, Kas.

In cases of injury of the eye, a question of great importance is, Has the offending body entered the eye?

To determine this is sometimes a most difficult task. If the wound is large and deep, with escape of part of the contents of the eye, the diagnosis is easy. On the other hand, the diagnosis is quite difficult if the injuring body is small and moving with great velocity, and may in some cases, for a time at least, be impossible. A small body moving with great force may penetrate deeply into the eye, making a scarcely perceptible wound and little or no pain. It is a fact well to keep in mind that a small body moving swiftly may penetrate deep into the eye and cause much less pain than one moving slowly and lodging on the conjunctiva. So the slowly moving body lodged on the eye-ball or under the lid will cause severe pain for days and weeks, unless removed, while the penetrating body may cause little or no suffering.

Small bodies may even enter the eye and after sufficient time has elapsed produce cataract, and yet the patient be unable to remember the time of its entrance or that the eye has ever sustained any injury. In fact, injuries so serious as to destroy the usefulness of an eye may, and frequently do, pass unnoticed, and the finding of the injuring body in the lens after extraction of cataract may be the first indication the patient has of ever having sustained injury to the eye.

This being true, certainly too much care cannot be taken in examinations of the eye for foreign bodies, and certainly emphasizes this one point, *i. e.*, that we must not be in too great haste to tell our patients that there is nothing in the eye, or that it has sustained no injury.

An example of this class of injuries is the explosion of a percussion cap. A bystander or the party exploding the cap feels a very slight pain or stinging in the eye, rubs the eye a little, wipes away a tear, and feels it no more. A close examination will find a small piece of the cap in the anterior chamber, iris, lens, or perhaps in the vitreous. Many men who have seen active military service are now drawing pensions for blindness in various degrees on account of this class of injury, and yet there is in many of these cases no external indication of disease or injury to the eye and no pain.

The first step in diagnosis is to find the wound of entrance and then determine whether the injuring body has penetrated. To find the wound is by no means always easy. It is sometimes necessary to make the most careful examination, using all the means at command, and then may fail to find the wound. Have the eye turned slowly in all directions, and by the aid of a magnifying glass and oblique illumination it will generally be found. Having found the wound of entrance there yet remains to be determined whether the injuring body has penetrated the eye, and, if it has penetrated, its location. The most satisfactory evidence of perforation is to see the injuring body. But there are others, some of which are: Escape of the aqueous, hernia of the iris, or both, iris in contact or near the cornea, blood in the anterior chamber — if not caused by severe concussion — unnatural softness of the ball, a small hole in the iris corresponding in size to the corneal wound, a visible wound in the capule of the lens, the lens becoming milky, showing the first stage of traumatic cataract. If these are absent, and there is manifestly a wound in the cornea, dilate the pupil and use the opthalmoscope. If the fundus is dark and no probability of rupture of intra-ocular vessels, there is almost certainly penetration. Impairment of vision and the appearance of cloud in the field of vision, from extravasation of blood or the foreign body, or both, is strong presumptive evidence of penetration. Decreased tension is a valuable sign of penetration when present, but if the injury is caused by a small body, there may be no loss of vitreous or aqueous and no change in tension.

If the patient is not seen for some time after the injury is received, the wound of entrance is closed and the aqueous reproduced, there will be change in tension. The same remarks will apply to the vitreous. If the patient has not been seen for several days, there may be, instead of minus tension, an actual increase of tension. The eye may be harder than normal. Even this careful examination may fail to locate the foreign body. It may be located far forward in the vitreous, behind the iris or ciliary circle—we may not be able to detect it at all. Then we may mistake an air bubble for the object of our search. A small speck of blood may lead to the same error. In case of uncertainty we must be very guarded in our statements and await developments, which in some seemingly hopless cases will repay a period of anxious waiting.

If the eye is struck behind the cornea, what then?

If seen at once or within a short time, the little ragged wound or ecchymosis in the conjunctiva will indicate the point of contact.

Has it entered?

If the wound is at or very little back of the sclero-corneal junction, we may still look in the anterior chamber for the foreign body. The iris may be wounded, or there may be hernia of the iris. Blood in the aqueous chamber has the same importance as when the wound is through the cornea. With the opthalmoscope you may sometimes find a small hole in the iris by means of the red reflex from the interior of the eye, which had escaped detection by all other means. If the wound is large in the conjunctiva and sclera, made by a large body entering or glancing, escape of vitreous is likely to occur—the globe filled with blood, the eye soft, flabby or collapsed. Enucleation is the only rational course in this class of cases, and the only good rule to follow.

But all is not hopeless if your patient is near you and can be seen often and on short notice.

You may be justified in waiting and watching, and occasionally you will be rewarded with gratitude, if nothing more substantial, for the restoration of useful vision.

Prof. Thompson, of Indianapolis, in speaking of this class of cases to his class, in 1878, gave a case in point that I regret very much not being able to reproduce in this paper. Briefly the case was this:

A machinist was struck in the eye by a fragment of a three-cornered file. The globe was penetrated, the lens protruding, vitreous escaping and the ball soft and very much reduced in size. His judgment was that enucleation was the only thing to be done, and so stated to his patient, but as he lived near and could be seen often, the professor proposed to wait and watch. He replaced the lens, instilled some atropia into the eye, applied a bandage and sent the patient home. The subsequent history of the case was uneventful, except for the fact of speedy recovery with vision as good as the other eye.

A foreign substance, if small and smooth, *may* become encysted and remain in the vitreous and be harmless. But if in the iris, choroid or retina, their presence is nearly always resented, and always a source of danger to the other eye. If in or near the ciliary region, there is certain to be trouble sooner or later, and the danger is greater of sympathetic opthalmia. In the lens they perhaps give the least trouble.

Of foreign bodies in the eye, a small shot is more likely to remain harmless than anything else.

The treatment of this serious injury may be very briefly stated. If the eye is badly lacerated, as by a large foreign body, there is only one thing to do, and that is to enucleate the eye. Shot wounds, even when the shot are small, nearly always make enucleation necessary. Small particles of iron may sometimes be removed, even when deep in the eye, by a magnet, but this manner of removing foreign bodies is not often successful. If the foreign body is adhering to or sticking in the iris or lens, it may be removed by an operation as for iridectomy or cataract extraction, and seizing the body with a small forcep. This is a delicate operation and must be performed with great

care. The aqueous must be allowed to escape very slowly or hernia of the iris results, which complicates the operation. In many cases, where the foreign body adheres to or sticks in the iris, an iridectomy is necessary, including the foreign body and injured portion of the iris.

Electricity as a Therapeutic Agent.

Read before the Eastern Kansas and Golden Belt Medical Societies, Topeka, April, 1892,

By DR. JOSEPH HAIGH, Grenada, Kansas.

I come before you to-day for the purpose of urging the claims of electricity as a therapeutic agent to a higher position than most of the profession accord to it.

I presume every gentleman present is as well acquainted with its laws and the means of generating it as I am, and probably some are more so.

If you ask me what it is and how it acts, I will promptly tell you that I don't know any more than what life is.

You may come back with the question, Then how are we to use a thing of that kind in medicine?

I would reply, Do you ever take advantage of the use of air in your practice?

Well, who knows what it is? We know it exists, we know of its power both as a physical and destructive agent, yet we cannot see it or tell how it acts; we only know it does.

With the different apparatus for the generation of electricity I need not weary you, but the kinds or forms used in medicine of which I shall speak are the galvanic or straight current as it leaves the machine, and the faradic or reflected current. With the Franklinic form I will not now deal, but I believe in some forms of chronic disease it cannot be surpassed.

We know that the action of certain chemicals upon certain metals releases the subtile agent we call an electric current; that as the same leaves the machine it does so as a positive force, and that experience has utilized it in medicine as well as in commercial life.

How does it act? you will probably ask. Well, how does it destroy a tree? We know it does do so.

How does the animal assimilate food, the same food so that in one part it builds up muscle, in another, bone?

If the members present here were to sit down and wait and try to figure out how certain drugs physic and not give a dose till they knew exactly how it acted, I'll venture that one of their old standbys, calomel, would not be found in their list of prescriptions for a long time.

I will not pursue this line further, but take up the subject now from a therapeutical standpoint by saying that the past experience of man and our own is all we know about anything.

In electricity rightly applied we have a potent agent for good, but it will not cure everything, and it many times fails from faulty apparatus and a lack of knowledge how to use it. For instance: It makes a wonderful difference which end of a gun you point at a snipe when you go to shoot.

I now propose in homely English to give you my own experience in the use of electricity in my practice. I commenced its use in 1886. My teachers had been Dr. G. J. Engelman in line of diseases of women, and Dr. Herman, diseases of nervous system, both of St. Louis Polyclinic, and Dr. Pitzer, who at that time was dean of St. Louis Eclectic Medical College. I tried to put into practical use the parts of the information I had retained from their teaching. I have used it since, and am using it more every year, and with better results, and for a greater variety of troubles.

In the condition of both sexes where there is lack of assimilation, sleepless nights, poor appetite, nervous apprehension of some impending danger, I use central galvanization by placing an eight-inch bell-shaped electrode, covered with membrane and filled with water, over stomach, making it negative, and using a small sponge-covered electrode over forehead, top of head and upper cervical region, using it for three to five

minutes, and as strong a current as they can bear without pain, and I find that usually eight to ten treatments, on alternate days, using the faradic current for a short time each sitting by holding small electrodes in hands, is all of the treatment usually needed, if due regard is had to hygienic surroundings.

As an illustration: W. H. L., a young man of good habits, consulted me in summer of 1886 with the symptoms, no appetite, vague fear of approaching evil, sleeps very little and that disturbed, mind centred upon some supposed disease of lungs and kidneys. He had "been the round" of physicians near him. I placed him under the above treatment and in four weeks he was at work hearty and well, and is so to-day.

Now before I proceed further I had better speak about so-called "electrical dosage." Let me say right here that I consider the whole paraphernalia of machines used to measure the current a medical nuisance, and a means to enrich a lot of electrical sharks who have them to sell. There is only one place in medicine a milliampere metre is of the slightest use, and that is where the patient is under chloroform, and I am not in favor of ever using a current strong enough to require that, for I believe better results are secured by using weaker currents and taking more time. I know full well that I will bring down criticism on this point, but I will give you my reasons. Now, first, it claims to measure the dose. Now in therapeutics we wouldn't give the same dosage every day and time to even the same patient, nor would our patient always stand the same dosage. Now this is doubly true of electricity and the different capabilities of different persons, and even the same person on different days. Then how is the meter used? Why, we run the current up to the degree that our patient can stand well or our own judgment and experience say is enough, and then we look at the meter and read off the amount, and the very next time you will have to do the same thing, for if your patient is more sensitive he won't stand same dosage as before, and after all, your patient's condition is your guide, just as in giving quinia, and your milliampere meter is only a superfluity, and you are watching it instead of your patient, and it is an extra body in your circuit, and unless as nicely adjusted as a watch it is a damage as well.

Dr. Engelman, in writing to me in regard to my claims for the intra-uterine curette as electrode, published in November number of *Medical World*, says: "Your curette as a positive pole is a correct idea, but like many good things, athough the theory is correct, yet the practical difficulties of battery, meter, etc., will prevent any more general application." Remember this is from my old teacher, and one to whom I owe more of a debt of gratitude than the student ordinarily does to the teacher.

Dr. Walling also in his short review of my paper hints at the same thing, for he says "That no doubt in properly selected cases it is a good thing with electrode properly insulated, etc." Now you see the idea held out is that we need a national museum full of appliances to use electricity in that class of cases under consideration. Now give me your attention. We have had too much of this kind of doctrine in the use of electricity. My friends Drs. Ward and McClintock will tell you that in abdominal surgery their instruments and paraphernalia under the teachings of their masters Tait and Price are simplicity itself. Then why complicate a valuable agent like electricity when we come to use it? It is practical, and if the profession would sit down on a lot ot pharmaceutical and battery companies and secure our own materials through our own people, both electrical and therapeutical agents would be practical, and we would not be at the mercy of a lot of interested men and companies who are getting rich at our own and our patient's expense, while we eat with a wooden spoon of our own manufacture.

I'll say this: We need a good battery. The expense of that now we must put up with, although that is at present a robbery. But if we have a supply of soft rubber catheters we can do our own insulating, and with our home tinner at hand he can soon

turn us out all the zinc plates of all sizes with copper attachments we need, and then with some canton flannel to put on first, and a few chamois skins, we can have our own electrodes of all dimensions needed, and by the way, far better than we pay six times as much for. We can with very little ingenuity of our own take our old Sim's sound and have our blacksmith put a hole in the proximal end, and then we slip over it a rubber catheter and cut off enough of the rubber at distal end to measure uterus, wrap with cotton, and you have as good an intra-uterine electrode as you need. Have your smith bore a hole in proximal end of your curette; you don't need any insulation there to curette for fungous endometritis. Take any piece of soft iron; slip a piece of rubber over it; let it project one-fourth inch and fill with absorbent cotton; have a hole bored in other end for your battery cord; you are then ready to use iodine or anything else in your current. Don't you see we can get up nearly all of our electrodes for every purpose at home and make this thing practical and do good work and get rid of that whole class of complicated machinery that has prevented the profession from using one of if not the most valuable agents in modern therapy, and by taking this course make some battery companies our servants instead of our masters.

I will now call your attention to the use of electricity in chronic suppurative trouble of middle ear, with, of course, drum perforation. I use this method: Thoroughly cleanse ear with perox. hydrogen pure, then fill ear with clear alcohol and carry a bulb or olive pointed electrode well down in the fluid, using such a current as patient can stand. I do this every second or third day, and so far my results have been surprising. You will say it is the chemical agents, but I will reply, have tried them to see, but without success. I also use iodine in the current, placing it back of the affected ear, making it positive pole. I give you an illustration: J. F. R., chronic suppuration of both middle ears, dating from childhood; now forty years old. This was a bad case, puss continually running down over shoulders in spite of all precautions. It commenced as a sequel of scarlet fever in childhood. I treated him for twelve weeks, with entire cure of suppurative trouble and also something like half of return to normal hearing power. He can now understand a speaker at an ordinary distance, and music, as well as ordinary conversation. I had tried this patient before by other means and failed.

In catarrh of middle ear resulting from cold, with partial loss of hearing, I use electricity as the main agent; in fact, outside of general care of health, as the only agent. Illustration: B. H., girl, aged eleven, loses her hearing in one ear almost entirely, and partially in the other, every time she contracts a bad cold. The only agent I now use is electricity, galv. current, carried from mastoid to other side. I carry current up till she feels dizzy, then drop back; use three to five minutes; only two or three applications needed.

In these cases I carry current up to the point of their feeling dizzy, then drop back. I never continue the sitting over five minutes. I have used electricity in two cases of exophthalmic goitre (Graves' disease) with gratifying results. In this disease, recognizing the involvement of great sympathetic, I use central galvanization in connection with the main treatment, which is a direct current through tumor, with iodine in current every second time. I am a great friend of cactus. grand. in this or any disease where rhythm of heart is disturbed. In straight bronchocele I use strong galv. current through growth and iodine in current, and also follow each iodine application with chloroform in current.

Illustrations: Mrs. P., aged forty-six, bad case Graves' disease, eyes greatly protruded, slept with body in upright position and very little, appetite gone, sense of suffocation, body anasarcous. Under above treatment in six weeks' time she was doing her own work; eyes were back to about one-third normal position. She continued in good or fair health for over a year and then contracted typhoid fever from a child she took care of that had that disease, and died.

Mrs. H. L., large double goitre involving

both lobes of thyroid and causing intense dyspnœa. I was fortunate in relieving case from very first treatment, and it certainly could not be ascribed to drug part of treatment, for it was nearly the same as used by my medical friends who referred her to me, and she was gradually growing worse under their treatment.

In chronic congestion of liver, and in splenic congestion also, I regard electricity as standing in their treatment, in the same relation to drugs, as the wife to husband, viz., the noblest of the two, and each a helpmeet for the other and bringing out results that neither can attain alone.

In those obscure thickenings or swellings connected with stomach and intestinal canal, where we are in doubt both in regard to contents and prognosis, let me urge upon you a trial of galvanic electricity. I will emphasize this by an illustration:

Mrs. L. came under my care November 4, 1891, and was placed there through the influence of her son-in-law, Dr. Fitzgerald, one of the leading physicians of our county. He had visited her several times at her home in St. Joseph, Mo., and requested her physicians to thoroughly try the effects of electricity. Finally, at his request she was placed under my charge. I found a solid, hard lump, involving the pyloric end of stomach, and apparently embracing the greater part of duodenum. It so involved this part that in a few minutes after taking solid food the pain would almost throw her into convulsions, and the bowel near stomach would apparently be thrown into a complete slip-noose—if you will pardon the latter term. She was reduced to liquid food, and very little of that. I must confess that a fear of carcinoma made me feel very reluctant about commencing treatment, but inside of a week my doubt gave way to the joy of anticipated success. From the very first treatment the growth began to yield, and I treated her last on December 26 for it, making fifty-two days of treatment, part of the time every third day. I of course used a general tonic treatment, but about the same as she had been growing worse upon. Now for the results: Upon the very closest examination two weeks ago, when she was out on a visit to my friend Dr. Fitzgerald, we could not detect the least bit of a tumor. She does her own work—all of it—and, to use her own words, "I eat anything I please, and all I please, without any inconvenience whatever."

Now my friends, what agent can you name known to our race that could have worked this change? Don't think this statement is overdrawn or can be disputed, for it is as true and susceptible of proof as any fact can well be. You may say, "This is unscientific! You didn't make a diagnosis." Well, we relieved the woman and she lives to-day, a monument of gratitude, and that is better than correcting a mistaken diagnosis on a post-mortem table—and how many have done this? Don't all speak at once!

I will cite you another case: J. D. C., aged forty, consulted a Kansas City physician November, 1888, about a growth or swelling and on my return from St. Louis I was handed this opinion: "In my opinion, after a very thorough examination of Mr. C., he has aneurism of abdominal aorta. Have no suggestions to make as to treatment, as it probably admits of no cure." Now, to tell the truth about it, I don't know but my friend was right in his diagnosis, for I am positive that I was right upon a subclavian since, and I treated both same way, and both swellings subsided till it is with difficulty you can detect them now. Both are at work and have good health, or fair at least; and in their cases, with the exception of a simple tonic, the whole of treatment was by galvanism.

In the rheumatic type of neuralgias of this climate affecting especially the shoulders and sciatic regions, including the so-called lumbagos, I use negative pole over seat of pain, small sponge, large electrode opposite or on next higher plexus. For instance, in the lumbago put large electrode opposite on abdomen. In shoulder and arm, put large one over cervical and dorsal nerves supplying brachial plexus, etc., and you will be surprised at the changed condition in a few treatments of these old chronic nightmares of a doctor's office. In acute lumbago

I have had patients carried into my office who, in fifteen minutes treatment by strong galvanic current, were able to walk out unattended. Of course, in eight or ten hours it would again partially reappear, but very rarely after third treatment. If only in these cases alone, a good battery is a priceless instrument. And here, too, medication by drugs cannot be credited; for, in the first place, they have had no treatment previous to their visit, and in the second, they have not had time to receive any benefit from the drug side. In all of the above cases of neuralgic trouble use small negative electrode over pain, moving it about over whole area of affected part; while placing large electrode over some other part, leaving it stationary, and carrying current up as high as patient can well stand it, maintaining treatment for about fifteen minutes time. In acute inflammation of a part, there make your active small pole positive; for you have a positive condition in the joint if it is acute articular rheumatism, for instance, and you there require a positive electric force, for according to electrical laws, "Like repels like."

Illustration: Mrs. Mc has an attack of inflammatory rheumatism. I go to see her; she cannot raise either hand off the bed; wrists both badly swollen, red and painful. I take my battery, put large electrode over cervical and dorsal region, making it negative; then gently stroke wrists and hands with small positive electrode, using as strong current as she can bear, or until she can use her hand with current on without pain. Result: She uses her hands to help herself forthwith.

I now approach the domain especially claimed by my surgical friends, viz., diseases of female pelvic region. In doing so I wish to first state that I do not claim that electricity will cure, or even benefit, any cystic tumor of the ovarian group. Why? I believe it only because the current is diffused by the fluids to such an extent that the effect upon the growth is practically nil. The same would hold good of tubes containing fluids. Therefore, in these two places cited, electricity must fail, not because it is not sufficient to do the work, but because the contents diffuse the current, while in a fibroid this does not hold good. A cannon-ball might penetrate an iron-clad, and fail on same thickness of suspended blankets, if the ball had to traverse a water medium till it reached there. Therefore, I believe these conditions named will not prove amenable to an electric current. But excluding these conditions, and that is all I propose to yield, I would contend for everything else outside of operations for the restoration of parts. I believe that electricity, rightly, systematically and persistently applied, will to a great extent relieve, if not entirely cure, the other and most common affections in this region, which makes so many of our loved ones miserable invalids. In all cases where exudative material has been thrown out in the neighborhood of uterus, or even in abdominal region proper, give me electricity first, last and all of the time. In ovaritis or salpingitis the galvanic battery will beat surely any other measures you may see fit to adopt. In stenosis of cervical canal, what more can you ask in the line of a dilator than a good battery and a graduated set of bulbs upon a negative electrode to relieve those terrible monthly rounds of dysmenorrhœa? Also, in stricture of urethra in either sex, the same set of instruments are good enough for me. In hypertrophy of uterus from any cause outside of malignancy, electricity is the agent that will give us the most rapid and lasting results; and let me say, our country is full of women who are suffering from the conditions developing upon a subinvoluted uterus following confinement, which a six-weeks' course of electrical treatment would surely relieve, and in most cases cure. I need not refer you to Apostoli's and Keith's results to say that in fibroid growths it has worked marvelous results. In fungous endometritus, just make your curette a positive electrode and diffuse the other pole by a large electrode over abdomen and thoroughly curette endometrium with all the current turned on that your patient can stand, and see the little loss of blood that will follow, with the small amount of reaction following, the little necessity

for usual antiseptic details, the assurance you can send your patient home without fear of inflammatory trouble ensuing, and the rapid involution following, with relief from the former conditions, and you will never again curette without making your instrument the positive pole of a galvanic battery. I feel sure that this statement is correct when I make it.

I will further illustrate: Mrs. C., invalid for several months following miscarriage at fourth month. Bloody discharge continuously; much emaciated. Came under my charge September 9; had been under treatment for nearly three months. Found uterus enlarged and ready to bleed at slightest touch of any instrument; even the introduction of speculum caused bleeding from cavity. I used curette, making it positive electrode, put her on a tonic, and that was the last of it; and she is now hearty and doing her own work.

Another case I will cite you: Mrs. B. had miscarried at sixth month, but although under the care of two very competent physicians, who it seems to me had exhausted all of the known therapeutical measures usually adopted in such cases, except electrically, called me in with them to examine her. She was partially paralyzed in lower extremities; in constant pain, with abdominal enlargement equal to seven months' pregnancy. This enlargement simulated a gourd in shape, filling with large part the whole of left pelvic and abdominal region, with the neck-shaped part extending towards the umbilicus. It distinctly pulsated, and at times was worse than others, but its pulsations were always present. I will confess I never saw anything like it. In addition, she would have hemorrhage from bowels every two or three weeks. We placed her under electrical treatment as a forlorn hope, for she was failing rapidly, and she commenced to gain from the very first week, but slowly. At the end of three months' treatment she was on her feet again.

Then she took la grippe and lost use of limbs again and partial use of arms, but the swelling kept receding, and we persisted in treating. Finally she regained use of hands, then of limbs, and at the end of nine months swelling was gone entirely, and she is doing her household duties, and as well as we could wish. We never ventured upon a diagnosis of the swelling, but it was evidently not connected with the uterus, for it was about normal, but this swelling developed upon the miscarriage in some way. I call attention to it as a great point in favor of the use of galvanism, at least for a time, in those cases of abdominal swellings that are obscure, and we are in doubt of their true nature. If it fails, the surgical plan is still open, and I feel sure not compromised in the least by former electrical treatment.

In conclusion, I thank the Eastern Kansas Medical Society for the compliment bestowed upon me by asking me to present this paper before you, and I trust you will kindly look over its many imperfections as a paper in your criticisms of the therapeutical position taken by its author.

Tuberculocidin.

It appears that "Klebs" has reported in the *Deutsche Medicinesche Wochenschrift* that by a process therein described he has been able to separate from tuberculin the substances producing the deleterious effects so marked in the use of this remedy and leaving in solution what is believed to be the curative agent, and to this remedy he has given the name of alexin or tuberculocidin. The wonderful enthusiasm with which the profession received tuberculin is well remembered, and the almost complete renunciation of faith in its virtues is also well known. This has been the history of every discovery known to the medical world. But truth is mighty and will prevail, and from the encouraging reports of those engaged in investigating tuberculocidin we believe that it is a step in the direction of a cure of tuberculosis. Let us wait with patience. "Art is long."

DR. J. A. DILLON, the efficient physician at Christ's Hospital, has been rusticating for a few weeks near Osborne, Kas.

The Topeka Academy of Medicine and Surgery.

The Topeka Academy of Medicine and Surgery met in Lincoln Post Hall at 8:30 P. M., Tuesday, June 7. There were present Drs. Ayers, Sheldon, Pelton, Barnes, Rodgers, R. E. McVey, W. E. McVey, McLaughlin, Williamson, Magee, Morgridge, Peers, Donaldson. Visitors: Gundrie and Smith.

Dr. Ida Barnes read a paper, a report of six abdominal sections.

Paper received and opened for discussion.

DISCUSSION.

Dr. McVey.—"It is a very important fact that these cases can be relieved by operation, and if the conditions as presented existed in the cases, the operations were certainly advisable. Would like to know the mental condition of these cases after the operation."

Dr. Sheldon.—"The practice of puncturing the small cysts of the ovaries and returning them to the abdomen is somewhat doubtful. There may be a refilling, and my observation is that they do return. Another point is in regard to the effect of removing uterine appendages where there is a chronic metritis, whether it relieves this condition. You ligate some vessels, which may relieve the engorgement. The monthly engorgement is also gotten rid of, and this may help to relieve the condition. Saw a case to-day where we advised the operation for relief of chronic metritis as well as the diseased tubes.

"As to leaving a drainage tube in the cavity when it is aseptic and only a small amount of blood is present, it is not necessary and is not generally advised now. This blood will be absorbed. It adds greatly to the success of an operation to give patient careful preparation. The people are learning to accept the dictum of a well-informed physician as to necessity of an operation. Do not operate upon cases that are most sure to prove fatal. It makes people suspicious and doubtful of utility of the operation, and if life can be prolonged for only a short time it is not advisable."

Dr. McLaughlin.—"The idea of removing an ovary because there is a cyst is preposterous. Puncturing is more in the right direction and should be followed out more strictly."

Dr. Morgridge.—"I would like to ask if these were young women. I do not think it is an established principle, but if these cysts can be obliterated by the puncture, it is advisable. A study of the histology tells me that the result of this operation would not justify us in adopting it. These cysts are formed in endothelial membrane, and I do not believe simple evacuation will be of permanent benefit, but enough of the tissue to destroy sac must be removed. It is certainly undesirable to unsex women if the results can be obtained by the simpler operation.

"The question as to relief of endometritis by an operation is important. There is a hyperplastic condition, and though we do not cut off all the vessels we cut the afferent nerves which control the dilatation of the vessels, and the uterus diminishes in size. We have a cessation of the congestion (monthly), which keeps up the hyperplastic condition."

Dr. Pelton.—"It is claimed by several prominent neurologists that in the cases operated on for relief of nervous troubles, within two or three years the nervous troubles return. The same thing occurs in operations upon the brain for nervous affections." Reported a case of hystero-epilepsy cured by local treatment of uterus. "I feel these operations are often performed where they are needless. Think other treatment should be tried and the major operations held as a dernier resort."

Dr. Magee.—"By far the larger per cent. of these cases are due to specific infection. I cannot conceive of a method of medication by which these diseased organs can be relieved. It is a waste of time. If a distinct local infection can be ascertained, it seems to be proper surgery to remove the organ."

Dr. Rodgers.—"It has occurred to me that there is more of this work done than is

necessary. Some men are working in that line for a reputation and we have given them credit for being great surgeons. It is really a simple operation. Of course when there are adhesions to bowel it is quite serious. It is a great many times simply an exploratory incision, and they are seldom prepared to meet an emergency. As to the resultant effects on nervous systems, it is now claimed from investigation that these troubles return and there are frequently new nervous troubles which did not exist previous to the operation. The appropriate cases are those of pus tubes. Operators do not know what they have until they get into the abdomen. I believe in carefully choosing the cases, using all palliative treatment before resorting to an operation. Have seen nothing in regard to puncturing the cyst, but have noticed where parts of the ovaries have been removed but have not heard of the results; nor do we hear the permanent results of the operations to-day."

Dr. Sheldon.—"I do not agree with Dr. Rodgers as to the wave of operation. Surgeons are better able to judge of their cases and would not operate upon cases now that they would have undertaken ten years ago. The operation has not proven as successful for nervous troubles as was expected. The cases most frequently operated on are those of chronic invalidism, and they are usually benefitted by the operation. I cannot imagine a line of medication which would have benefitted the cases reported by the essayist. They might have been benefitted for a time, but the trouble would light up again, and time was really lost."

Dr. Pelton.—"There are cases in which operation is certainly justifiable, but a great many of them are not. In regard to other treatment of these nervous conditions: In hystero-epilepsy, etc., there are certainly better methods than ovariotomy. The trouble is not primarily in the genital organs, but is really dependent upon general tendencies and the local irritation."

Dr. Barnes, in closing, said: "All our cases were thoroughly anæsthetized and there was some shock. In the hysterical case reported there was retroflection and swollen tubes. Have only known of the two cases of puncture of the cysts, and have not been able to learn of the results. We usually let the drainage tube remain twenty-four hours, and always used it. These were all poor patients and could not take a long treatment. In all cases I saw, the tissues removed were diseased, though not always the trouble found as diagnosed."

Dr. Magee was allowed another month to prepare paper.

Bill for hall rent allowed, and secretary instructed to draw order for same.

Secretary instructed to notify members who are in arrears for dues as to amount due.

Resolutions of recommendation for Dr. Jones presented by Dr. Morgridge, and secretary instructed to prepare official copy of same and present to Dr. Jones.

Dr. Sheldon called attention to the practice of druggists wrapping their medicine in advertising sheets of homeopathic and patent medicines. "It injures the physician and discourages patients. I do not think we should patronize druggists who do this."

Dr. Donaldson reported an experience where this occurred.

Dr. Rodgers thought it time to take a stand against quacks and traveling charlatans.

PROF. CREDE, of obstetric and gynecological fame, died on March 14. The "Crede" method of expressing the placenta introduced by this great physician some years ago should be remembered and practiced. The day of meddlesome midwifery has not entirely disappeared.

Good for Burns.

℞

Campho-phenique.....℥ j
Lanoline.....
Ung. aquæ rosæ.....aa ℥ j

M. Sig.: Apply three times a day.

—*Weekly Medical Review.*

Kansas Medical Society (Continued).

GENERAL SESSION, MAY 5, 9 A. M.

Report of the secretary was read and approved. A bill for banquet at Salina was read. On motion, this bill was referred to committee at Salina, and committee ordered to appear before the judicial council to explain.

The following censors were appointed: Drs. Munn, Daugherty, Purdue, Aikman, Bell.

Dr. Reid Alexander submitted the following report of the Stormont library committee:

Mr. President.—We have the honor to report to this society the following list of books, charts, diagrams and manikins which constitute the purchases and donations to this library since its organization.

A reference to its pages will show that it consists of 896 bound volumes, aside from several valuable aids to study in the form of diagrams and charts, prominent among which we are pleased to call your attention to Marshall's anatomical diagrams, life size and mounted on rollers, and Bently and Trimens medicinal plants.

The amount expended so far in these purchases is $2,639.05, which has been drawn from the fund of $5000 which Mrs. Stormont has donated as a nucleus to the library. As will be seen, there remains of this fund $2,360.95 unexpended, which will be used as Mrs. Stormont directs.

The state treasurer informs us that he has placed $703.34 to the credit of the Stormont Medical library, it being the accumulated proceeds arising from the investment of the $5,000 permanent endowment fund. These profits will not be drawn upon until the amount of her present donation is exhausted.

Through the kindness of Mr. H. J. Dennis, state librarian, ample room has been given us in the halls of the state library for these purchases, and as additions are made space will be provided. Mr. Dennis has listed these books, both as to title and subject upon which they treat, and has devised many ingenuous aids to assist the student in his search for topics.

As these books are works of the highest authority, latest editions, and cover the whole range of medical literature, we take pleasure in presenting you this list.

Respectfully submitted,

REID ALEXANDER,

Chairman Library Committee.

Dr. C. A. McGuire presented a communication from Mrs. Stormont, as follows:

TOPEKA, KAS., May 2, 1892.

To the Honorable President and Members of the Kansas Medical Society:

Believing, as I do, that the best interests of the society, the Stormont Medical library and myself can be served by the election of a permanent chairman of the library committee, I would respectfully ask as a favor that the society so elect.

Should this request meet with the approval of your honorable body, I would again ask as a favor that Dr. Reid Alexander be elected to fill the position. In making this special request for the election of Dr. Alexander as permanent chairman, I am governed by reasons of the fact that his personal and business relations with the late Dr. Stormont in the past and myself in the present have been such that I feel that he has been of material aid and benefit to me in establishing the Stormont Medical Library, and his knowledge of and association in the work will best subserve the object desired in the completion of the same. I also find that my business relations with the committee are more readily and satisfactorily conducted with the chairman than with the committee as a body; and for the reasons above mentioned and my true wish to complete the work in the most satisfactory manner, I am sincerely your well-wisher,

JANE C. STORMONT.

On motion Dr. Alexander was made permanent chairman of the Stormont library committee.

On motion the library committee was requested to investigate some plan for making the Stormont library a circulating library, and present the same to the legislature.

Dr. J. E. Minney submitted the following resolutions for Dr. Schenck:

"WHEREAS, The American Medical Association, at its last annual meeting, inaugurated with great unanimity a movement to establish a national department of health, with a secretary of public health in the cabinet, under whose care should be placed all matters pertaining to public health; and,

"WHEREAS, The duties of the treasury department, crowded with the finances of a great nation, are in nowise germane to public health; and,

"WHEREAS, No interest in a nation is more important to its people than life and health; therefore,

"*Resolved*, That we heartily indorse the recommendation of the national association looking to the establishment of a department under whose protecting ægis shall be gathered all that pertains to the health and development of the people, and whose officers, like those of the army and navy, shall, after careful examination, be appointed for life.

"*Resolved*, That we earnestly request the senators and representatives from Kansas to labor for the establishment of such a department, and that a copy of these resolutions be forwarded to each representative."

On motion of Dr. Fryer, of Kansas City, Mo., a committee was appointed to select from the program certain papers to be read in general session. The committee consisted of Drs. Fryer, Alexander and Guibor.

The following program was submitted by the committee:

Mole pregnancy—Nannie A. Stephens, M.D., Wichita.

Why I should not use the forceps—M. R. Mitchell, M.D., Topeka.

Tuberculosis—J. H. Brierly, M.D., Kansas City, Kas.

A paper—J. H. Van Eman, M.D., Kansas City, Mo.

Report of some cases of laparotomy—H. C. Dalton, M.D., St. Louis, Mo.

A paper—Joseph Bauer, M.D., St. Louis, Mo.

Extra uterine pregnancy—A. H. Cordier, Kansas City, Mo.

Management of fibroid tumors of the uterus—T. J. Beattie, Kansas City, Mo.

How a general practitioner may treat atrophic rhinitis—Hal Foster, M.D., Kansas City, Mo.

What is the safest operative procedure for the extraction of senile cataract?—B. E. Fryer, M.D., Kansas City, Mo.

The paper on mole pregnancy, by Dr. Annie Stephens, was discussed as follows:

Dr. Van Eman said: "I have had some experience with these cases. I do not like the term mole pregnancy better than false conception. I have seen a few cases where the ovum became blighted, and so far as a fœtal heart sound is concerned, I have never seen a case where it was necessary to look for it. The fœtal movement these women speak of is more in the head than in the fœtus. Her desire to become a mother inaugurates the idea of movements. Something destroys the relations of fœtus to mother and it dies, but what this is we are unable to say." The doctor then reported a case where at three months there was a question as to the exact condition; at eleven months labor pains came on and the woman was delivered of a placental mass, but there was no fœtus. "I do not think we should postpone action in these cases."

Dr. Cordier.—"A point in reference to symptoms. Mole pregnancy is very similar to extra uterine pregnancy. The passage of a membrane at a menstrual period is evidence of extra uterine pregnancy, and is also an indication of mole pregnancy. I have recently seen a case of mole tubal pregnancy."

Dr. Beattie.—"It is the exception that we meet with cases of this kind. The diagnosis is very difficult to make. In the early months it is nearly impossible. As soon as positively ascertained to be a false conception the contents of the uterus should be removed." Reported case as follows: "Patient had symptoms of miscarriage at what she supposed was seventh month. She had all the symptoms of pregnancy except fœtal sounds. I concluded she was not so long pregnant as she supposed. About twenty-four hours after seeing her she expelled a

mass of tissue one-half the size of my hand. She had not menstruated since the time she was supposed to have become pregnant."

Dr. Jewell.—"I have had a case of phantom tumor which illustrates the fact that the sensations of the mother cannot be relied upon. Movements on recumbency were so strong as to be visible. These were caused entirely by action of the abdominal muscles and she firmly believed she was pregnant. In six months everything disappeared."

Dr. Stephens.—"I desired a discussion as to the advisability of an operation at the time the mole pregnancy was decided to exist. In the case I reported I think it was not a mistake not to relieve her of the condition."

Dr. J. H. Van Eman presented a paper upon the subject of pneumonia, giving in detail the course and symptoms of an attack with which he was himself afflicted, and in the duration of which there were many peculiarities, rendering the diagnosis difficult and uncertain.

On discussion of the paper Dr. Day said: "In regard to the use of phenacetine, I should like to say I have been very well satisfied with it in these cases."

Dr. Daugherty.—"Every one is interested in the treatment of these troubles. Phenacetine did well in this case, but we must not conclude that it should be used in every case. I give phenacetine to relieve pain and give sulfonal to make a man sleep. We should treat the conditions, and not give our remedies according to the name of the disease. We cannot treat pneumonia by rule, but we must treat the patient according to conditions."

Dr. Basham asked if the cyanosis present was in any way related to the phenacetine.

Dr. Van Eman.—"We are agreed with Dr. Daugherty about the plan of treatment of disease—not by name, but by conditions. I bear opium badly, and at the time phenacetine was used to relieve pain, and this in five-grain doses when pain was not very severe, or ten grains if it was. It caused no disturbance of the circulation. The sulfonal was used for the same purpose. It caused a natural, quiet sleep, and afterwards I was able to take a bowl of soup. In regard to the question of Dr. Basham about the cyanosis, I would say this occurred before the phenacetine was used. I derived more benefit from phenacetine for the pain and sulfonal for sleep than anything else."

Dr. Cordier reported some cases and presented specimens.

Dr. W. P. King then read a paper on Oophorectomy *vs.* Donothingism.

Dr. Lanphear presented specimen and reported a case. A large fibroid tumor of uterus. Had been taking ergot for some time without avail. I urged an early operation. Woman married five years, though never pregnant. Three months ago she ceased menstruating. She was then taking ergot. A few days ago was taken with labor pains, which were temporarily controlled by morphia. Next morning pains returned, a sudden cessation with collapse following, which the doctor called peritonitis. Was called at this juncture and decided we had a case of extra uterine pregnancy. On opening belly a large amount of blood was found, and fœtus with its covering found up under liver. Patient died from the loss of blood prior to the operation, the rupture having occurred twelve hours before I saw her. She might have been saved if the operation had been done immediately after the rupture. I wish to impress upon you the danger of the occurrence of tubal pregnancy in these cases of uterine fibroma. In regard to Dr. King's paper, I do not think it advisable to remove healthy ovaries for neurotic disorders. In cases with degeneration of ovaries or purulent condition of the tubes, I should operate.

In the discussion on the reports of Drs. Cordier and Lanphear, and the paper of Dr. King—

Dr. Ward said: "Dr. Cordier suggests vaginal douching with hot water in purulent conditions of tubes, when operations are not indicated or permitted. I do not agree. I have found cases where it did injury. Tinkering of course should not be permitted. Sometimes I recommend that in using the douches, if they find any ill results, to discontinue. If you have a ruptured perineum

you nearly always have a lacerated cervix and pelvic inflammation. This we usually say is due to the lacerated cervix, but it is generally resultant from ruptured perineum from the increased tendency to infection. You should see in labor cases if there be any laceration of vagina; it should be closed or kept perfectly clean.

"In regard to Dr. King's paper, I find the functions are not lost when the ovaries are removed, but are usually improved. I prefer to wait one year before saying a patient is well, though they go home feeling well. You will not have a fixed or reliable condition until the menopause has taken place, and this requires one year. In neurotic troubles the earlier results are unfavorable, but I think in a year or two they are much benefited.

"In regard to drainage, it is recommended to use drainage, as irrigation may wash the poison into surrounding tissues. I think there is a point to this, though; if there is much pus, I should want plenty of water. I think we should be cautious in operating for pain unless there should be pathological conditions present.

"Abscesses are not so painful as fibrocystic ovaries."

Dr. Fryer.—"In regard to the treatment of purulent condition of tubes or pelvis. These cases should be handled with care to prevent a general sepsis."

Dr. Beattie.—"When the diagnosis is clearly and positively made, I think no one will say an operation should not be done. The censure that has been brought upon such operation is on account of the careless doing."

Dr. Van Eman.—"No one will dispute the necessity of operating in these cases where diagnosis is clearly made. It would be interesting to see now the technique of abdominal operations of eighteen or twenty years ago." Reported a case of labor which he supposes was dual pregnancy. "I decided it to be a multiocular cyst beginning during pregnancy. A necessity of operating was recognized and confirmed by council. The distension of abdomen necessitated something to relieve. I used trochar. Before I could find anyone to undertake the operation I tapped nine times. One man who had some experience claimed no operation could be done. Finally an operation was done. As to technique, an ordinary soap and water bath; none of the precautions now used were observed. An incision was made, a trochar introduced, and fluid allowed to run into a tub. Pedicle was tied by transfixing and tying on both sides. One slipped off and the cavity filled with blood. Thirteen ligatures were applied before bleeding stopped. Blood mopped out, and ligatures left hanging out; ordinary dressing with cotton. Result excellent. This operator refused to operate in a case which was later operated upon by an irregular. The first operation in the state I did in 1880.

"In regard to Dr. Lanphear's statement of necessity of removing a fibroid tumor on account of danger of tubal pregnancy, I don't believe there is much liability of such an occurrence. Not more liable to tubal pregnancy than any other woman. I am satisfied of the independent motion of the spermatozoa. The liability of pregnancy depends upon the distance the two active principles have to travel. I believe fixation occurs at the time and place of fecundation."

Dr. Cordier, in closing, said: "Men who condemn oophorectomy know nothing about the conditions which demand it. The indications for irrigation and drainage in pus cases are too plain to mention. We should always use glass. I can't see why Dr. King would operate on the cervix after removing appendages. Cleansing is most essential. Tubal pregnancy is not the only reason why fibroids should be removed. It is dangerous to say that a hysterectomy is easy. It is a difficult procedure. In many cases in which pus is present, cover the intestines with sponges and thus keep out the pus. The removal of most of the pus aids in making sure that sepsis will be prevented.

"It seems strange that Dr. Beattie should recommend intra uterine applications in tubal disease. The distance traveled by the sperm and germ is speculative."

Dr. King, in closing, explained why he operated on the lacerated cervix after oophor-

ectomy. He said: "It was because of the extreme laceration, and on account of hemorrhage at site of laceration, and found it necessary to operate by scraping surfaces. I find a great many who are careless regarding their hands. I insist on the small incision. If there have been pus tubes or pus ovaries, wash out by all means, and very hot water should be used. Drainage is often necessary. A small rubber tube may be inserted into a larger one, and then one can suck out the fluid. No operation should be done for the sake of the operator, but for the patient. We should always know what we are operating on."

[TO BE CONTINUED.]

"LOOK HERE," said an excited man to a druggist, "You gave me morphine for quinine this morning." "Is that so?" replied the druggist. "Then you owe me twenty-five cents. That's the difference in the price."—*Brooklyn Life.*

DR. WILCOX, professor of clinical medicine in the New York Post-Graduate School, in a paper read berore the New York Academy of Medicine, gave a history of twelve cases of anæmia treated with a new preparation of iron, viz., Weld's syrup of the chloride of iron. It is an elegant preparation, without the nauseating and teeth-destroying effects of the old reliable tinct. ferri chloridi. This is worth remembering. It is prepared by Parke, Davis & Co.

INFANTILE diarrhœa is now in order. While there are many agents that tend to its cure, prevention is worth oceans of cure. While heat and impure air are factors in its production, improper food, both in quality and quantity, are its most potent causes. The mother's breast or good sterilized milk given at proper intervals and in the manner nature has indicated, through a nipple with a small opening, and nothing else, is the natural and proper food for the babies.

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TOPEKA, KANSAS, JULY, 1892.

Gall Stones.

In the March number of THE KANSAS MEDICAL JOURNAL I reported a method of treatment for gall stones by the hypodermatic injection of chloroform into the gall bladder for the purpose of relieving pain and dissolving the stones *in situ.* As some doubt has been expressed by those who should be better informed as to the solvent power of chloroform over gall stones, I place this short article before the readers of the JOURNAL.

Chloroform is the best known solvent of cholesterin and bilirubin. Gall stones are, in the majority of cases, composed of these crystallizable substances. The white gall stones consist of stratified layers of cholesterin. These dissolve rapidly in chloroform. The brown stones consist of bilirubin, zinc, and calcium carbonate mixed with iron, copper and manganese with epithelium, mucin and fats. When the stones are composed of cholesterin and bilirubin in excess, they dissolve very quickly in chloroform, and the

stone as an element of danger is gone. But if the stones made up of those materials mentioned above are not soluble, of what benefit is the injection of chloroform? We answer that the hypodermatic injection is indicated in this class of cases, first, for the relief of pain. This is certainly a safer procedure than to give a large dose of morphia, and may be repeated at short intervals with greater safety than morphia. Then the local anæsthesia produced by the chloroform on the tissues involved gives a good hope that the stone will pass during this relief and relaxation; and if no relief is obtained by this measure, we can have recourse to an operation. S. G. S.

The American Medical Association.

The forty-third annual gathering of this great body of American medical practitioners may be numbered among the most profitable of all its meetings.

There was a good attendance and many of those present were full of years and full of professional honors; while many more, in the hey-dey of professional life, were earnestly climbing, climbing to the topmost rounds of our professional ladder. Respecting the achievements of those gone before, honoring their teachers, with added laurels they will soon be welcomed by the foremost and passed to higher honors. Such men do not ignore, as is the fashion with weak minds, those who are in front, and those in front gladly reach back a helping hand to the patient toilers who are climbing upward.

In the more than three hundred papers presented to the various sections were the patient labors and digested thoughts of earnest workers, freely given for the benefit of all. In attending these meetings it is difficult to say whether we are most benefited by having these papers and the discussion they elicit—all of which we will get bye-and-bye in the *Journal*—or in the cordial hand-shake and happy reunions of men working together for the uplifting of humanity. Men who have thrown aside all the petty differences that are apt to arise in the sharp competitions of daily life, and are a unit for the promotion of medical science.

The general session unanimously accepted and approved the report of the committee on a national department of health. But while the profession see its importance to the life and health of the people, it may be long before it is appreciated by the average politician. Though President Marcy looked backward to a national board of health, there was no looking backward by the association. Onward, onward for humanity was its motto.

Some important changes were made in the machinery of the association. To relieve the general sessions of an excess of work, most of the business that usually occupies much of its time will be transacted by a committee composed of three from each of its sections.

The code of ethics was referred to a committee to report if any improvement could be made in its requirements.

The differences in the New York state societies were referred to committees, with the hope that they might be harmonized.

Of course the people of Detroit did everything to make our meeting a social success. The reception given by the local profession at the armory was charming, and the welcome at the homes of General Alger—who in his hospitality forgot the great political pow-wow at Minneapolis—Mayor Stearns and Mr. George S. Davis were right royal. Parke, Davis & Co. did all in their power to pave our pathway with flowers, and rides in carriages and excursions on the water were provided for delegates and their ladies, and all felt that in culture and courtesy Detroit has no superiors and few equals. S.

SCHOOL examinations are a nuisance. The teacher who has had charge of a pupil for a term and who does not know what progress has been made is unfit to teach. The excitement, worry and anxiety are all unhygienic and should be eliminated from regular school work.

LAST summer a public rain bath was established in a tenement district in the city of New York. The prophecy was it would not be appreciated or patronized. The first morning after it was opened one hundred and twenty persons obeyed the divine injunction "go wash and be clean." Cities, mines and manufactories cannot better advance their own interests or those of their citizens or employes than by establishing rain baths, which, where there are waterworks, will be found cheap and efficient, and can be furnished the poor for practically nothing.

RHUS TOXICODENDRON.—There is the widest possible range of susceptibility to the action of the common poison vine which grows freely in all the states of America. While upon thousands it produces no effect, on other thousands its slightest touch is followed by a most uncomfortable pseudo-erysipelatous eruption. While many agents are recommended for its cure, nothing succeeds better than dressings of absorbent cotton kept moist with a saturated solution of hyposulphite of soda.

The Humanitarian.

We note among our exchanges vol. 1, No. 1, of this journal, which its editor, Mrs. Victoria Woodhull Martin, tells us will discuss all subjects appertaining to the well-being of humanity and endeavor to thrust out every hereditary law, so that there may be a scientific data upon which to build, and to demonstrate what class of citizens may perpetuate their species so that humanity may be steadily uplifted.

She sees deterioration in the luxurious life of the rich and in the oppression of the overworked poor, and in causes innumerable, and while she does not presume to have reached final conclusions, claims to be a pilgrim in search of the Holy Grail. She argues wisely that if it is worth while to have a pedigree among our horses that will show a long line of healthy and successful sires and dams with every care for the health of those used for breeding purposes, if man is of more value than the horse, it is more important for the sake of his children and the state that something other than lust, fancy, rank or wealth should lead to those alliances that are to perpetuate the race. We wish her success in her important field of labor.

Dangers of Lavage of the Stomach.

In the *Practitioner* of April, 1892, Soltau Fenwick, of London, discusses the question of lavage. He points out that attacks of convulsions and tetany have sometimes followed resort to this measure, and also that a number of cases are on record in which syncope and sudden death followed it. He also reports instances in which perforation of the stomach took place, and he has also known gastric hemorrhage to occur.

Besides the other injuries which may follow lavage, he points out that there are other cases on record in which antiseptic materials have been used for washing the stomach, and that as a result death has occurred in this way. This fatality has followed the use of a two per cent. solution of boric acid. The conclusions which he draws are as follows:

At the present day every imaginable symptom that can in any way be connected with the digestive organs is immediately considered as an indication for the use of lavage, and we find that not only are chlorosis, atonic dyspepsia, and the gastric crises of ataxia subjected to this treatment, but even cases of reflex vomiting are supposed by some to necessitate the employment of the douche. But it is obvious that in those cases where the treatment fails to do good it is extremely likely to do harm since, as Leube pointed out, it has the effect of removing those products of digestion whose manufacture has caused the stomach a considerable amount of labor. For his part, he fails to understand how washing out the organ in a case where the normal amount of secretion proves insufficient can

possiby increase its digestive powers, or the lavage of the stomach prevent the occurrence of symptoms which are wholly dependent on organic disease in another organ remotely situated. In one case of tabes dorsalis, accompanied by exceedingly severe gastric crises, he washed out the stomach every day for some weeks, and the state of digestion was carefully watched; but beyond the fact that the symptoms of the disease grew steadily worse, he could detect no material alteration in the condition of the patient. In like manner the few cases of atonic dyspepsia and chlorosis which he has treated by lavage, have, without exception, proved exceedingly rebellious, and only improved when subjected to the more ordinary course of medical treatment. Fenwick would, therefore, conclude that although lavage is an invaluable remedy in certain cases of gastric disease, its indiscriminate employment in every case of disorder of digestion will prove a curse rather than a benefit, and will eventually throw discredit upon the whole method of treatment.

—*Therapeutic Gazette.*

Dr. Holmes and Preventive Medicine.

In a recent letter Dr. Oliver P. Holmes says: "I am an out-and-out believer in preventive measures against disease as contrasted with what are called curative agencies."

A naturally frail physical organism has sustained his active brain in its grand work with a minimum of drugs and a maximum of prophylaxis. With a most happy temperament, great simplicity and regularity of habits, he has passed his four score years and is still hale in mind and body. He praises the bridge that has carried him safe.

DR. HELEN T. GRAVES, of Kansas City, Mo., died on Sunday evening, April 3, of pernicious malarial fever. She was a graduate of the Woman's Medical College of Philadelphia, of the class of '83.

—*New York Medical Record.*

DOCTOR—Madam, you need a little sun and air; confinement affects all women.

Patient—Why, doctor! I have only been married two months, and it is a little too soon to look for a son and heir and confinement. What do you take me for, anyway?

—*Kansas City Medical Record.*

HINTS in the treatment of diphtheria: Do not swab the throat if the patient is old enough to gargle. Use some of the well-known germicidal preparations as a gargle every half hour; or, better, one that may be swallowed frequently without danger to the patient. I find the following adapted to most cases:

℞

Acid, benzoic.....ʒ i ss
Soda biborate.....ʒ ij ss
Aquæ, dest., q. s. ad.....ʒ vi

M. Sig.: Give one teaspoonful every hour.

℞

Hydg. bichloridi cor.....gr. j
Aquæ, dest .....ʒ vi

M. Sig.: Give one teaspoonful every hour.

Let there be an interval of half hour between this and the benzoic mixture. The mercury to be continued until the stools are green; then if the membrane has disappeared, it may be discontinued. The benzoic mixture to be continued until convalescence, only two or three hours apart. The patient must be well nonrished. Milk is the diet most relied on. S. G. S.

A Curious Case of Cataract.

A woman, fifty years of age, with fully developed cataract in the left eye, entered into conversation with a student in one of the classes in Louisville. She dated her failure of vision from the birth of her last child. A casual examination was made; he thought quick and hard; a few mental evolutions and a cerebral somersault revealed to his flashing genius that "Her milk had settled in her eye and clabbered there. He solemnly assured her this was the exact state of her case."—*Exchange.*

THE first record of the removal of the terine appendages was about the year 1613, he operator being a sow gelder. Being rought before the judges they, finding no aw upon such an act, hanged him for rob- ing her of two pennyworth of apples which he had in her apron.

THE COCKTAIL HABIT.—In an address efore the Cambridge Temperance Associa- ion a few weeks ago, Prof. Humphry raised is voice against the habit of tippling or ipping, taking a glass now and then, a lass often in the morning, (which is worst f all,) at the mid-day meal, in the after- noon and evening. Even more than drunk- nness, he said, this was terribly damaging o the system. It made men sodden, and was evinced in a general shakiness of the and, sometimes of the step, and above all, f the tongue; in fact, a general shakiness f all the organs. The "nippers" suc- umbed to slight accidents—slight shocks f any kind. Prick them, and the life as it were ran out of them. They said "My work is hard," and they took the very means that unfitted them for good and pro- longed work.—*Exchange.*

How a General Practitioner May Treat Atrophic Rhinitis.

"This is the title of a paper published in this Journal May 21, page 636, and purport- ing to have been read before the Kansas State Medical Society at Fort Scott on May 4, 1891. (The date should be 1892.) By Hal Foster, A.B., M.D, Laryngologist to All Saints and Missouri Pacific hospitals; leeturer on Physical Diagnosis, University Medical College.

"We very much regret the error of date given above, and which was entirely an oversight on the part of our proof-reader; but, unfortunately, our attention is directed to the unpleasant fact that this carefully type- written paper read before the Kansas State Medical Society at its recent meeting at Fort Scott, is an almost verbatim reproduc- tion of a paper on The Etiology and Treat- ment of Atrophic Rhinitis, by Jonathan Wright, M.D., of Brooklyn, New York, and published in the *Medical Record* of August 15, 1891.

"We have to say that Doctor Hal Foster, Laryngologist, Lecturer, etc., exercised very good judgment in the selection of a paper for reproduction; but the wholesale gobble, without giving credit, of the labors of an- other man, and sending it forth as his own, is not only not commendable, but deserving of censure in very strong language."

The above editorial in the *Journal of the American Medical Association*, June 4, '92, explains itself. We regret very much that an affair of this kind should have occurred in the state society, and especially so since it involves the reputation of a man whose previous standing in the profession has been so creditable.

Dr. Foster's denial of the charge does not clear him of guilt, for a comparison of the two articles furnishes the unfortunate evi- dence to convict.

Artificial Sea-Sickness.

Dr. Graily Hewett has succeeded (*British Medical Journal*) in producing a very good imitation of sea-sickness by means of a swing and an oscillating mirror, thus com- bining visual disturbance with rhythmical motion of the body. He found that in those who were "good sailors," and not in the habit of suffering from sea-sickness, there were no particular effects observed. In those who were in the habit of suffering from sea-sickness, marked discomfort was produced within ten minutes or a quarter of an hour, during which the swing and mir- ror were both in motion.

The first discomfort felt was, in some cases, giddiness; in some, a fullness in the head; in some, headache; these discomforts being quickly followed by a rising in the throat, a catching in the throat, a feeling of sickness, or sensation of nausea, more or less pronounced. The exact effect differed

in different cases, but the effects appeared to be always recognized as the initial symptoms of sea-sickness by the individual experimented upon. The rapidity with which these symptoms were produced varied; those who were most liable to sea-sickness were soon affected by the combined swing and mirror action. Two or three minutes sufficed in some cases to produce an unmistakable illness, and desire to discontinue the experiment. In some cases the mirror disturbance alone, and unassisted by the swing action, was sufficient to induce sensations like those of sea-sickness.

The motions which most quickly succeeded in producing a feeling of illness were, in a large number of cases, oblique oscillation of the mirror, associated with movement of the swing in an ovoid described in a vertical plane.

The downward motion in swinging seemed to be the most effective.

As regards treatment, Dr. Hewett found that the fixing of the eyes at a distance, or upon the sky, or better, simply bandaging them, would often keep off sea-sickness. Lying on the back still further helps this, as long experience has shown.—*N. Y. Med. Record.*

Criticisms Answered.

Our neighbor, the *Kansas City Medical Record*, offers some criticisms and advice to the Kansas Medical Society. The *Record* predicts that if this advice is strictly followed, "the society will soon begin to show the thrift of twelve or fifteen years ago."

The "good old days" idea, like reference to the cooking of our mothers, only shows that the appetite of the "older members" loses the keen relish of youth, which renders the plainest dish palatable and leaves a pleasant memory.

The criticism consists of these two points, viz.: (1) "The members should not turn the meeting over to the Missouri profession."

(2) "If the announcement states that there will be a four-days' meeting, do not adjourn at the end of the first or second day."

Several of the "older members" of our society have moved to Kansas City, Mo., but still meet with us quite regularly and constitute a fairly respectable part of our body. At the Fort Scott meeting one of these "older members" succeeded, through a committee of revision of the prepared program, in completely changing the order of exercises and presenting the productions of the "Missouri profession," while many of our Kansas members went home without having opportunity to read their papers, several not even presenting their manuscripts to the society.

This sharp practice of the "older members" was justified on the ground that they could not remain till the end of the meeting, and must either read early or not at all.

The annual announcement stated that the meeting was from the evening of May 4 to May 7. The society met at the appointed time and adjourned at noon May 6. There were over one hundred members present and a comparison of the reports will show that the "thrift" of the last meeting far exceeds that of any of the meetings of the good old days.

THE summer meeting of the East Kansas Medical Society will be held on Thursday evening, July 7, in Lincoln Post hall, Topeka. Half rate fare can be obtained over the various railroads on that day.

PROGRAM — EVENING SESSION, 7:30 P. M.

Neurasthenia — Dr. R. E. McVey, Topeka.

Discussion opened by Dr. F. H. Hall, Alma.

A new plan of intestinal anastomosis without plates — Dr. S. E. Sheldon, Topeka.

Surgery of the ankle-joint, including the tibio-tarsal region — Dr. George N. Lowe, Randall, Kas.

Discussion, Dr. L. J. Warren, Clay Centre.

Quackery — Dr. W. L. Schenck, Topeka.

Subject for general discussion.

Respectfully,

R. S. MAGEE, M.D., *Secretary.*

L. H. MUNN, *President.*

Monthly Summary of Meteorological Observations.

Observing Station, Washburn College, Topeka, Kas.
Altitude, 1,000 ft. Longitude, 95.41. Latitude, 39.3.

	MAY.
Mean barometer	29.879
Mean temperature (max. and min.)	59.6
Maximum temp	82.4 on the 1st.
Minimum temp	37.2 on the 21st.
Greatest range of daily temperature	30.0 on the 25th.
Least range of daily temperature	10.4 on the 31st.
Total precipitation in inches	14.10
Number of clear days	4
Number of fair days	13
Number of cloudy days	14
Number of days on which .01 inch precip. fell	18

Prevailing direction of wind, northwest.

Normal temperature (15 years)	63.9
Average precipitation (16 years)	4.72

T. B. JENNINGS, Observer, Signal Station,
Per F. S. DITTO, Signal Corps, U. S. Signal Service.

Report of Topeka Board of Health.

(Population 32,000.)

REPORT FOR MONTH OF MAY, 1892.

Scarlet fever	14
Diphtheria	1
Measles	15

DEATHS.

Inflammation of Bowels	1
Scarlet fever	1
Meningitis	1
Consumption	1
Pneumonia	3
Measles	1
Children under 5 years of age	3
Total	11

Ratio of 1 to 2,909 of population.

L. M. CARTER, *Sanitary Sergeant.*

Substitution and Its Attendant Evils.

By JOHN AULDE, M.D., Philadelphia, Pa.

Published by The Journal of the American Medical Association, Chicago, Ill., December 5, 1891.

Some years ago Dr. Squibb, of Brooklyn, set his seal on Marchand's peroxide of hydrogen by indorsing its character and defending its merits as the most powerful and yet harmless bactericide which could be employed in the treatment of various formidable and fatal diseases. Dr. Robert T. Morris, Dr. Paul Gibier, and other well-known authorities have corroborated his statements from clinical observation, and, as a consequence, a revolution has taken place in our methods of treatment in both medical and surgical practice. The efficacy of this simple remedy, its innocuousness and extended field of application, have shed a flood of light upon modern therapeutics, but at the same time there has followed in its train a host of worthless imitations.

The substitution of the commercial for the medicinal peroxide is calculated to work serious injury and destroy our confidence in a most potent remedy. In the treatment of diphtheria, for instance, the commercial product is positively harmful. When death results, shall we blame the attending physician or the unscrupulous druggist who substitutes a base imitation for the genuine product? And still, pharmacists who claim to be respectable, do not hesitate thus to trifle with human life. Is it any wonder, then, that our mortality percentages are on the wrong side?

CLEMIANA CHEMICAL CO., ATLANTA, GA.:

GENTLEMEN:—Having given the preparation known as Verrhus Clemiana a thorough and extended trial, on hospital and private patients, I can most cheerfully recommend it as serving an excellent purpose in those conditions resulting from specific and scrofulous diseases. I have found it to act with almost specific energy in strumous joint diseases of childhood and in many cases of chronic malarial poisoning which have resisted quinine and arsenic.

I am yours very truly,

THOMAS H. MANLEY, M.D.

New York, June 13, 1892.

LEWISBURG, PA., June 5, 1891.

GENTLEMEN:—Please send me some Antikamnia Tablets, that I may test their convenience, not their merits, for I have tested

Antikamnia so thoroughly for six months past, that it is no longer an experiment with me. It strikes directly and effectively, without bad results, at the two most characteristic points in disease, viz., fever and pain. With these two points well under control, the physician's battle in acute attacks is nearly won. Respectfully,

PULASKI F. HYATT, M.D.

Removal.

W. P. Cleary, long and favorably known to and trusted by this journal, has removed his office to 294 Broadway, New York, from which location he will be glad to transact any business intrusted to him, in the line of encouraging and promoting advertising connection between respectable and responsible advertisers and the best medical journals in every section of the United States. Preferred space promptly negotiated when exclusive right to dispose of same is placed with him.

We can give unqualified indorsement to the foregoing remarks that Mr. W. P. Cleary is trusted by this journal, and we know from our own experience that advertisers placing their orders through Mr. Cleary are well and faithfully served, and at no expense to themselves. We, for our part, are always glad to accept the orders he sends us, which are invariably at our lowest acceptable rates to the most desirable advertisers direct. Any commission he earns from us we cheerfully concede as an item of economical expenditure, preferring his services (in making our journal known to New York advertisers for just what it is) to the expense and trouble of making frequent personal or written applications for advertising.

A NEW, SAFE METHOD OF ADMINISTERING TOXIC MEDICAMENTS.—A new departure in therapeutic posology marks a recent enterprise of Parke, Davis & Co., which is in the interests of progress, economy and exactness.

The increased knowledge resulting from research in the fields of botany, chemistry, physiology, pharmacy and the materia medica has created a demand on the part of the medical profession for the essential or active principle of drugs in preference to the more cumbersome, less definite pharmaceutical preparations which custom and authority have so long sanctioned.

Not a few alkaloidal principles of drugs have been isolated, and are now frequently prescribed. The conservative element of the profession have, however, in view of the toxicity of certain isolated, medicinal principles, and the acknowledged variety of strength and activity of products of this character of different manufacture, been loath to employ them when indicated.

The doses sometimes being fractions of a thousandth or a hundredth, it is not possible for the physician to always bear them in mind, and in prescribing he is often in doubt as to what constitutes the proper therapeutical dose, and what the dangerous toxic one.

Dr. E. Trouette, in a paper read before the Paris Academy of Medicine, and published in the *Revue de Therapeutique*, entitled "Duodecimal Doses of Toxic Medicaments," proposes a method of obviating the difficulties hitherto preventing the general use of many valuable medicinal principles. The plan he proposes is a new method of posology based on the rational division into twelve parts of the maximum dose which may be given to an adult in twenty-four hours.

The advantages claimed for this method are, first, accidental poisoning need no longer be feared. Second, dangerous medicaments may from the outset be given in efficient dose without the least risk.

Parke, Davis & Co. have prepared diurnules and diurnal tablet triturates of a large number of toxic medicaments, and will afford the profession full information concerning this new method of posology with reprint of Dr. Trouette's article.

SUBSCRIPTIONS for the KANSAS MEDICAL JOURNAL are taken at this office at any time.